

IN THE CLAIMS

Please cancel Claims 1-45, without prejudice or disclaimer of subject matter.

Please add new Claims 46-90 as indicated below. The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

46. (New) A triphasic prosthetic device for repairing or replacing cartilage or cartilage like-tissue (1) comprising:

a polymeric hollow body component (3) with a number of highly oriented hollow bodies;

a base component (4) to anchor said polymeric hollow body component (3) in or onto an osteochondral environment and

at least one superficial layer comprising randomly oriented fibres (2) provided on said polymeric hollow body component (3)

wherein said number of highly oriented hollow bodies of the polymeric hollow body component (3) are aligned perpendicularly to the plane of the articulating surface to more than 50%.

47. (New) The device according to claim 46, wherein said hollow bodies are aligned to more than 90 %, preferably more than 95 %.

48. (New) The device according to claim 46, wherein an inner channel diameter of the hollow bodies of polymeric hollow body component (3) is in a range of 500 nm to 500 μm .

49. (New) The device according to claim 48, wherein said inner channel diameter is in a range of 5 μm to 150 μm .

50. (New) The device according to claim 46, wherein the polymeric hollow body component (3) is formed by an assembly of oriented tubes.

51. (New) The device according to claim 50, wherein a space between the assembled tubes is empty or filled with a substance selected from the group consisting of synthetic polymers, natural polymers, biologically engineered polymers, molecules thereof, biomacromolecules and any combination thereof.

52. (New) The device according to claim 48, wherein the channels have a wall thickness ranging between 1 nm and 500 μm .

53. (New) The device according to claim 52, wherein the wall thickness is between 100 nm and 250 μm .

54. (New) The device according to claim 46, wherein the hollow body component is a solid block of polymer with channels.

55. (New) The device according to claim 54, wherein the channels are formed by at least one of mechanical, physical and chemical methods in a solid polymer.

56. (New) The device according to claim 55, wherein said solid polymer is porous.

57. (New) The device according to claim 46, wherein lateral distribution of the hollow bodies of component (3) is homogenous, random or in a specific pattern.

58. (New) The device according to claim 46, wherein said hollow bodies of the hollow body component (3) have a height of 50 μm to 10 mm.

59. (New) The device according to claim 58, wherein the height is between 100 μm and 2 mm.

60. (New) The device according to claim 46, wherein the fibers of the superficial layer (2) comprise a material selected from the group consisting of synthetic polymers, natural polymers, biologically engineered polymers, molecules thereof, biomacromolecules and any combination thereof.

61. (New) The device according to claim 46, wherein the base component (4) comprises a bone substitute material.

62. (New) The device according to claim 61, wherein said bone substitute material is a material selected from the group consisting of synthetic polymers, natural polymers,

biologically engineered polymers, molecules thereof, biomacromolecules and any combination thereof.

63. (New) The device according to claim 61, wherein said bone substitute material is a mineral material.

64. (New) The device according to claim 63, wherein said mineral material is a synthetic ceramic.

65. (New) The device according to claim 64, wherein said synthetic ceramic comprises at least one of calcium phosphate, calcium sulfate and calcium carbonate.

66. (New) The device according to claim 65, wherein said calcium phosphate is selected from the group consisting of dicalcium phosphate dihydrate ($\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$), dicalcium phosphate (CaHPO_4), alpha-tricalcium phosphate ($\alpha\text{-Ca}_3(\text{PO}_4)_2$), beta-tricalcium phosphate ($\beta\text{-Ca}_3(\text{PO}_4)_2$), calcium deficient hydroxyl apatite ($\text{Ca}_9(\text{PO}_4)_5(\text{HPO}_4)\text{OH}$), hydroxyl apatite ($\text{Ca}_9(\text{PO}_4)_6\text{OH}_2$), carbonated apatite ($\text{Ca}_{10}(\text{PO}_4)_3(\text{CO}_3)_3(\text{OH})_2$), fluoroapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{F},\text{OH})_2$), chloroapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{Cl},\text{OH})_2$), whitlockite ($((\text{Ca},\text{Mg})_3(\text{PO}_4)_2)$), tetracalcium phosphate ($\text{Ca}_4(\text{PO}_4)_2\text{O}$), oxyapatite ($\text{Ca}_{10}(\text{PO}_4)_6\text{O}$), beta-calcium pyrophosphate ($\beta\text{-Ca}_2(\text{P}_2\text{O}_7)$), alpha-calcium pyrophosphate, gamma-calcium pyrophosphate, octacalcium phosphate ($\text{Ca}_8\text{H}_2(\text{PO}_4)_6 \times 5\text{H}_2\text{O}$) and mixtures thereof.

67. (New) The device according to claim 64, wherein said synthetic ceramic comprises at least one of metallic, semimetallic components and non-metallic components, preferably magnesium, silicon, sodium, potassium, strontium and lithium.

68. (New) The device according to claim 62, wherein the material is a composite material comprising at least two different components.

69. (New) The device according to claim 61, wherein the bone substitute material is highly porous with interconnecting pores.

70. (New) The device according to claim 46, wherein the shape of the base component (4) is round cylindrical or conical.

71. (New) The device according to claim 70, wherein the diameter of the base component (4) ranges between 4 and 20 mm, with a height being 1 to 30 mm.

72. (New) The device according to claim 71, wherein the diameter of the base component (4) ranges between 4 and 20 mm, with a height being between 1 to 10 mm.

73. (New) The device according to claim 46, wherein said superficial layer (2) has a thickness of 1 nm to 5 mm.

74. (New) The device according to claim 73, wherein said thickness is in the range of 10 μm to 2 mm.

75. (New) The device according to claim 72, wherein said superficial layer (2) is missing, or formed by uppermost end of the hollow body component.

76. (New) The device according to claim 46, wherein at least one of components (2), (3) and (4) has a liquid absorbing capacity in a range of 0.1% to 99.9%.

77. (New) The device according to claim 76, wherein said liquid absorbing capacity is in a range of 20.0 to 95.0%.

78. (New) The device according to claim 76, wherein the liquid is at least one of an aqueous media and a body fluid.

79. (New) The device according to claim 46, wherein the polymeric components are cross-linked.

80. (New) The device according to claim 46, further comprising at least one externally added component.

81. (New) The device according to claim 80, wherein said components are cells of different origin.

82. (New) The device according to claim 81, wherein said cells are at least one of autologous cells, allogeneous cells, xenogeneous cells, transfected cells and genetically engineered cells.

83. (New) The device according to claim 80, wherein chondrocytes, chondral progenitor cells, pluripotent cells, totipotent cells or combinations thereof are present throughout at least one of the components (2) and (3).

84. (New) The device according to claim 80, wherein osteoplasts, osteo-progenitor cells, pluripotent stem cells, totipotent stem cells or combinations thereof are present throughout the base component (4).

85. (New) The device according to claim 80, wherein blood or any fraction thereof is present throughout the base component (4).

86. (New) The device according to claim 80, wherein pharmaceutical compounds are contained.

87. (New) A device according to claim 46, wherein a cell barrier layer is additionally provided between said polymeric hollow body component (3) and said base component (4).

88. (New) A device according to claim 87, wherein the cell barrier layer is a cell selective barrier layer.

89. (New) A use of the device according to claim 46 for implantation in articulating joints in humans and animals.

90. (New) The use according to claim 89 for regeneration of articulator cartilagenous tissue.